

# CP25

electronic piano operating manual



## INTRODUCTION

*Thank you for choosing a Yamaha CP25 Electronic Piano. The CP25's advanced keyboard lets you vary independent note volume according to key attack (velocity), giving you touch response strikingly similar to that of an acoustic piano. Moreover, you have a choice of dual or single sound channel operation plus four combinable filters for a vast range of tonal variation. There are also pitch, waveform and decay controls that add even greater versatility. Other features include tremolo controls, a built-in flanger, and sustain pedal capability. Whatever type of music you play—from jazz to baroque—the CP25 electronic piano gives you all the sound, versatility and response you need. In order to make full use of the CP25's extensive capabilities, be sure to read this manual thoroughly.*

**WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. THERE ARE NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

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## CAUTION : READ THIS FIRST

### [INSTALLATION/LOCATION]



Do not use this unit in any of the locations mentioned below, as this may impair the sound quality or result in failure or breakdown.

- \* Location near a window where the unit may be exposed to direct sunlight or other extremely hot locations.
- \* Locations with a particularly low temperature.
- \* Locations exposed to high levels of moisture or dust.
- \* Locations susceptible to vibration.

### [DO NOT USE FORCE]



Do not force when using the switches or knobs.

### [TAKE CARE OF THE POWER CORD]



In order to prevent cord breakage and shortcircuits, take hold of the plug, not the actual cord, when disconnecting it from the power outlet. If the unit is not to be used for prolonged periods of time, disconnect the plug from the power outlet.

### [MOVING THE UNIT]



Make sure that you disconnect the power cord and detach connecting cables to other equipment before moving the unit.

### [CONNECTING AND DISCONNECTING OUTPUT CORDS]



If the output cords are connected or disconnected when the volume level of the amplifier should always be set with care, as the application of excessive input to the amplifier may cause damage to the amplifier or speakers. Before connecting or disconnecting the output cords to the other equipments, make sure to switch off each power switch.

### [MAINTAINING THE UNIT]



Do not wipe the unit with benzine or thinner, and do not use aerosol sprays in its vicinity. Always use a soft cloth to wipe the unit.

### [KEEP THIS MANUAL]



Keep this manual in a safe place for future reference, and refer to it frequently until you are fully familiar with your CP25.

### [THUNDER STORMS]



Remember to disconnect the power plug from the power outlet whenever there is a thunderstorm in order to prevent accidents resulting from lightning.

### [OTHER APPLIANCES]



Since your CP25 incorporates a considerable amount of digital circuitry, it is advisable to use it where it will not be influenced by electromagnetic radiation from appliances such as televisions, radios, etc.

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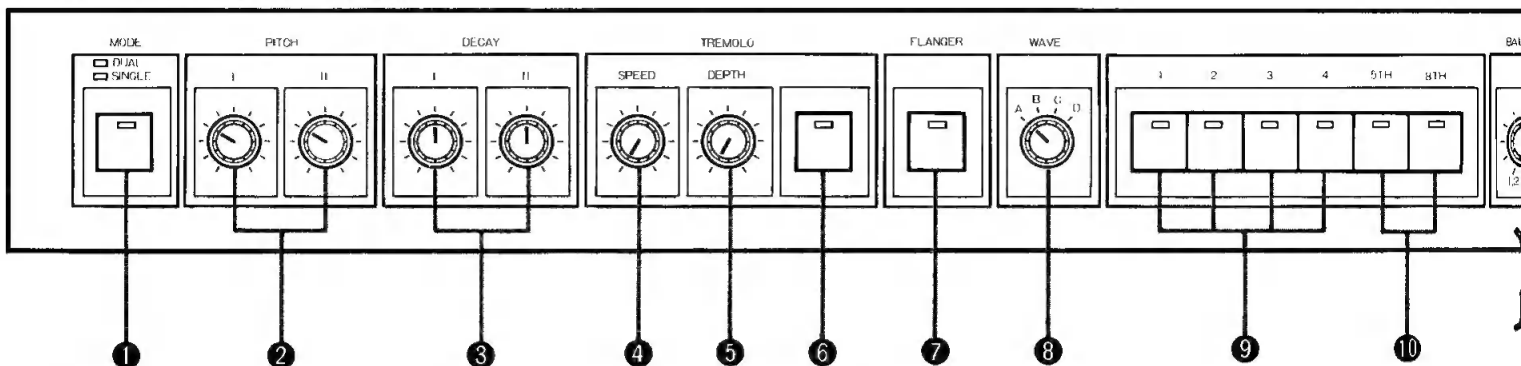
- 3**
- 
- This diagram shows the front panel being attached to the frame. The panel is positioned against the frame, and a curved arrow indicates the direction of movement for the attachment process.

- [illegible]

- 3

# FRONT PANEL AND CONTROLS

## CONTROL PANEL (FRONT PANEL)



### 1 MODE

The **MODE** switch (DUAL/SINGLE) determines the maximum number of simultaneous output notes and the number of sound channels used.

**DUAL:** In the DUAL mode, 2 sound channels are operative with a maximum of 8 simultaneous output notes.

**SINGLE:** In the SINGLE mode, 1 sound channel is operative with a maximum of 16 simultaneous output notes.

When the **MODE** switch indicator LED is lit, the DUAL mode is active, and when extinguished, the SINGLE mode is active. **MODE** alternates between DUAL and SINGLE each time the **MODE** switch is pressed.

When power to the instrument is initially turned on, the DUAL mode is automatically activated.

### 2 PITCH I, II

The **PITCH I** and **PITCH II** controls independently adjust the pitch of the CP25's sound channels I and II, respectively. Turning either of these controls to the right (clockwise) raises the pitch of the respective channel, while turning to the left (counterclockwise) lowers pitch.

Setting channel I and channel II to different pitches produces a "detune" effect creating a fatter, honky-tonk piano type sound.

Pitch control range is approximately from 436Hz to 453Hz. Setting the **PITCH** controls to approximately 10 o'clock provides 440Hz (A<sub>3</sub>) tuning.

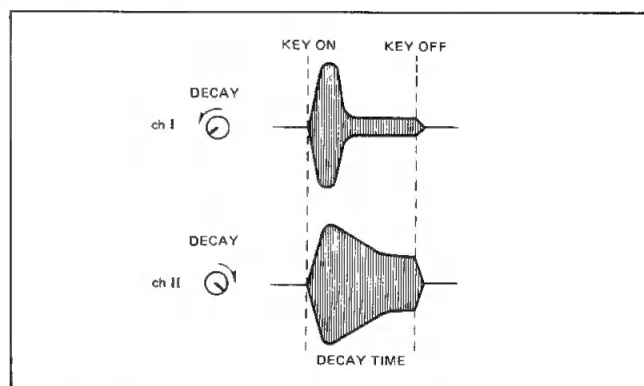
\* When the SINGLE mode is active, the **PITCH II** control has no effect.

### 3 DECAY I, II

The **DECAY I** and **DECAY II** controls independently adjust the decay time of sound channels I and II, respectively.

Turning either of these controls to the right (clockwise) lengthens the decay time of the respective channel, while turning to the left (counterclockwise) shortens decay time. The **DECAY** controls can each be set to eight different positions. Once the pitch, tone and balance of the two sound channels have been set, the **DECAY I** and **II** controls can be used to create a broad variety of decay time combinations providing extra sound control flexibility.

By setting exceptionally long decay times it is possible to create sustained, organ-like tones.



\* When the SINGLE mode is active, the **DECAY II** control has no effect.

### 4 TREMOLO SPEED

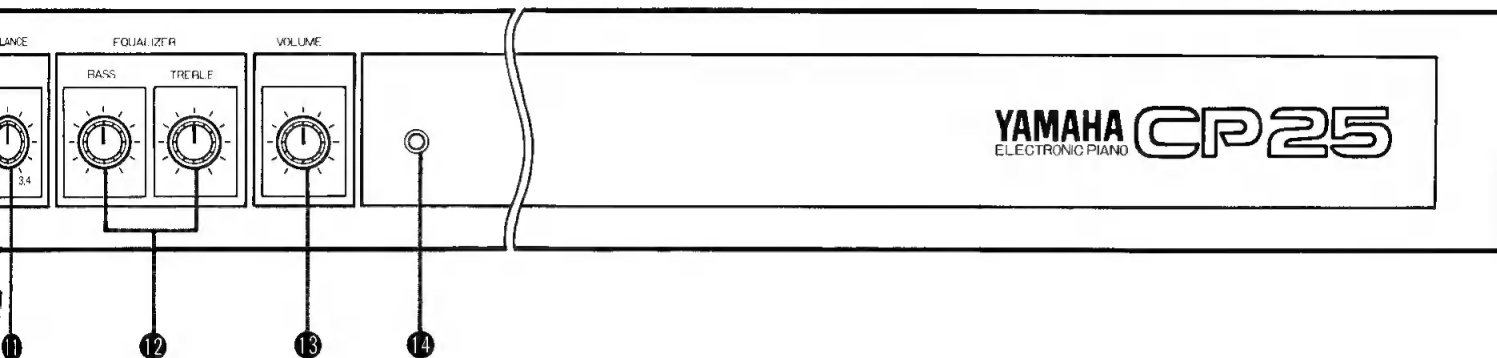
The tremolo effect produces periodic variations in the volume of the sound. Turning the **TREMOLO SPEED** control to the right (clockwise) increases the speed of the volume variation, while turning it to the left (counterclockwise) creates a slower tremolo sound.

If the CP25's independent **OUT 1** and **OUT 2** outputs are connected to separate amplifier and speaker systems, the sound will seem to sweep back and forth between the two speakers at a rate determined by the **TREMOLO SPEED** control.

### 5 TREMOLO DEPTH

This control determines by how much the volume of the sound is varied by the tremolo effect. Turning the **TREMOLO DEPTH** control to the right (clockwise) produces a larger variation in volume, while turning it to the left (counterclockwise) produces a smaller (shallower) volume variation.

TREMOLO SPEED	TREMOLO DEPTH	TREMOLO OUTPUT
<p>Slow</p>	<p>Smaller</p>	<p>OUT 1</p>
<p>Fast</p>	<p>Larger</p>	<p>OUT 2</p>



### ⑥ TREMOLO SWITCH

This switch turns the tremolo effect on or off. Pressing this switch causes its LED indicator to light showing that the tremolo effect is on. Pressing it a second time turns the tremolo effect off (LED "off").

\* Tremolo output from OUT ① and ② is reverse phase. If both of the tremolo outputs from OUT ① and OUT ② are mixed with the monaural signal by using a mixer, the tremolo effect is not produced.

### ⑦ FLANGER SWITCH

The flanger effect produces a pleasant "swooshing" or "swirling" effect with long tones, and adds interesting tonal variation to staccato passages.

Pressing the FLANGER switch causes its LED indicator to light showing that the flanger effect is on. Pressing it a second time turns the flanger effect off (LED "off").

### ⑧ WAVE

The WAVE selector selects the waveform shape of the channel I and channel II tone generators but not each independently. Four basic waveforms (A, B, C and D) can be selected, providing a broad range of subtle tonal variations.

### ⑨ FILTER SELECTORS

These selectors permit application of four types of filtration to the waveform determined by the WAVE selector (1, 2, 3 or 4).

1. FILTER SELECTOR 1 activates a low-pass filter thereby producing a round, warm sound.
2. FILTER SELECTOR 2 activates a low-pass filter with a higher cutoff frequency than that of FILTER SELECTOR 1, thereby producing a somewhat harder sound.
3. FILTER SELECTOR 3 activates a bandpass filter which produces a clear, well-defined sound.
4. FILTER SELECTOR 4 activates a high-pass filter thereby producing a hard, bright sound.

\* The tonal quality of sound can be changed not only by combining filter selectors 1 through 4 of channels I and II but also by adjusting the DECAY controls and selecting A, B, C or D on the WAVE control.

The DECAY controls adjusted at the dual mode can cause an overall change to the sound and therefore they are helpful in creating sounds.

### ⑩ 5TH, 8TH SELECTORS

These selectors raise the pitch of channel II by the designated interval with respect to channel I.

Pressing the 5th selector causes the pitch of channel II to be an interval of perfect fifth higher than channel I.

Pressing the 8th selector causes the pitch of channel II to be one octave higher than channel I.

Pressing both the 5th and 8th selectors causes the pitch of channel II to be an interval of perfect 12th (an octave and a fifth) higher than channel I. (DUAL MODE)

\* When the SINGLE mode is active, the above transpositions affect the overall sound.

### ⑪ BALANCE

Balances or "mixes" the sound of filters 1 and 2 in relation to filters 3 and 4. Turning this control to the right increases the level of the FILTER 3 and 4 sound in relation to the FILTER 1 and 2 sound, while turning to the left increases the level of the FILTER 1 and 2 sound in relation to the FILTER 3 and 4 sound.

\* If the BALANCE control is rotated towards a side where no filter is active, no sound will be produced. i.e. FILTER 1 only engaged and the BALANCE control rotated fully to the right (3.4 side).

### ⑫ EQUALIZER

**BASS:** Turning the BASS control to the right (clockwise) emphasizes the low-frequency range thereby producing a fat, heavy sound. Turning this control to the left (counterclockwise) de-emphasizes the low-frequency range, while, set to its center position response is virtually flat.

**TREBLE:** Turning the TREBLE control to the right (clockwise) emphasizes the high-frequency range thereby producing a light, bright sound. Turning this control to the left (counterclockwise) de-emphasizes the high-frequency range, while, at its center position response is virtually flat.

### ⑬ VOLUME

Controls the overall volume level of the CP25 sound.

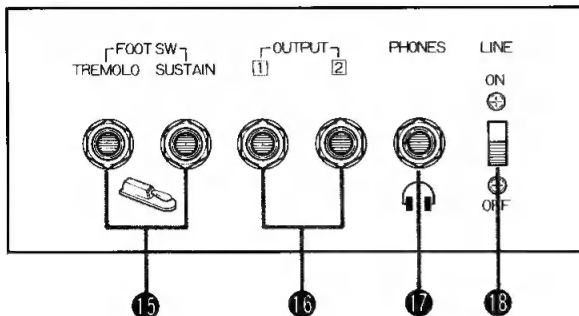
Turning the VOLUME control to the right (clockwise) increases overall volume, while turning it to the left (counterclockwise) decreases overall volume.

### ⑭ POWER INDICATOR

This indicator lights to show that the rear-panel power switch is turned on.

# SIDE PANEL • REAR PANEL AND CONTROLS

## SIDE PANEL



### 15 FOOT SW

**TREMOLO:** A foot switch (FC-4, contained as accessory) plugged into this jack can be used to turn the TREMOLO effect on and off. The effect of the foot switch is the same as that of the front-panel TREMOLO switch.

\* TREMOLO can be turned on or off using the footswitch even if the front-panel TREMOLO switch is off.

**SUSTAIN:** A foot switch (FC-4, contained as accessory) plugged into this jack permits foot on/off control of CP25 sustain. Sustain length is determined by the front-panel DECAY I and II controls.

FC-4, one unit is contained in product as accessory. More foot switches (FC-4 or FC-5) are available optionally.

### 16 OUTPUT 1, 2 (Unbalanced)

These standard phone plug outputs should be used when connecting the CP25 to conventional musical instrument amplifiers.

When the TREMOLO effect is activated, the volume variation output from channel 2 is reverse phase from that of channel 1. When the TREMOLO effect is not activated, output from channel 1 and channel 2 is identical.

### 17 PHONES

Plugging a pair of stereo or mono headphones into this jack provides convenient private monitoring of the CP25 output. Headphone volume is controlled by the main VOLUME control 13.

### 18 LINE ON/OFF

This switch turns signal output from the OUTPUT 16 connectors on or off. The PHONES output remains active even if the LINE switch is turned OFF.

### 19 AC CORD CONNECTOR

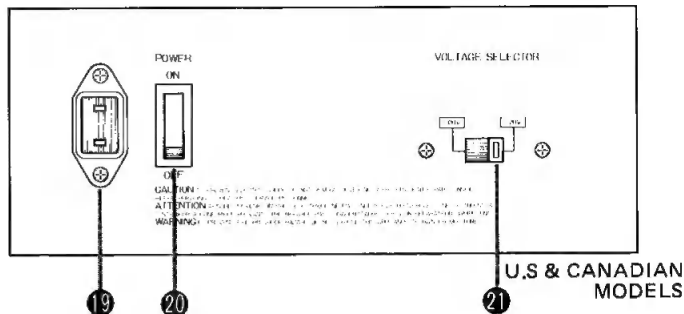
Accepts the female-connector end of the supplied AC power cord.

### 20 POWER ON/OFF

This switch turns AC power to the unit on or off. When the POWER switch is initially turned on, the front-panel power indicator, MODE switch indicator and FILTER 1 indicator will light.

The DUAL mode is automatically selected when the POWER switch is first turned on.

## REAR PANEL



### 21 VOLTAGE SELECTOR

This selector must be set to comply with the AC mains voltage in your area. Improper VOLTAGE SELECTOR setting can result in impaired performance and even cause permanent damage to the instrument.

### USING THE MODE SWITCH

The MODE switch permits selection of either SINGLE mode (channel I only) or DUAL mode (channels I and II) operation. Operation of the PITCH, DECAY and 5th and 8th transpose selectors varies according to the MODE selected.

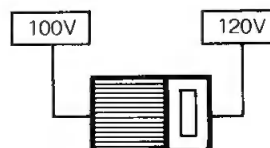
1. When the **DUAL mode** is selected (MODE indicator lit), both sound channels I and II are operative. The pitch of channels I and II is controlled by the PITCH I and II controls, and the decay times of channels I and II are controlled by the DECAY I and II controls, respectively. The 5th and 8th transpose selectors raise the pitch of channel II only. This means that the pitch of channel II can be raised by an interval of a 5th, a full octave (8th) or an octave and a 5th (both transpose selectors engaged) in relation to channel I.

This mode permits creation of a broad variety of full, rich sounds.

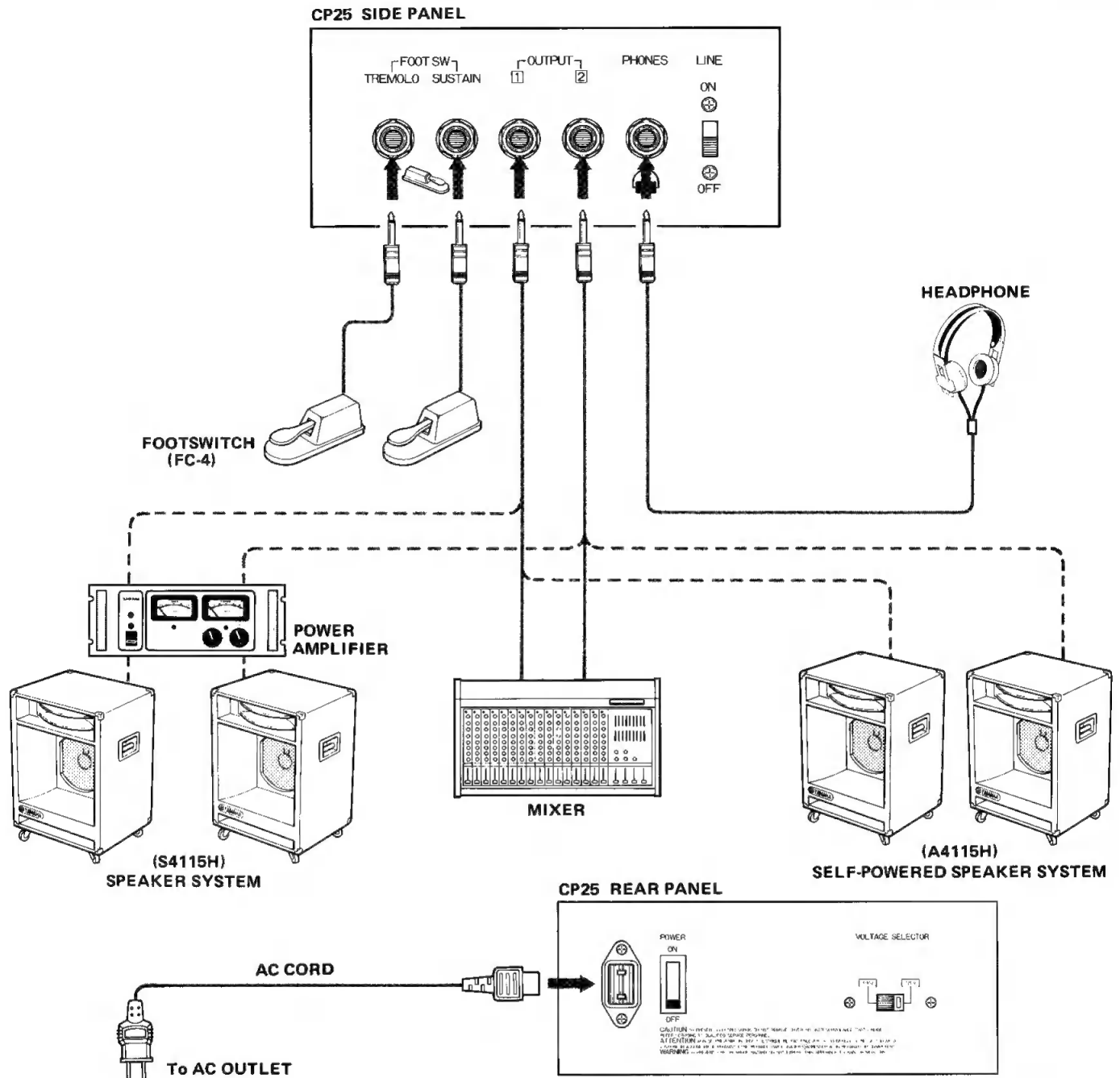
2. When the **SINGLE mode** is selected (MODE indicator extinguished), only channel I is operative. This means that the PITCH II and DECAY II controls will have no effect on the sound. In this mode, the 5th and 8th transpose selectors raise the pitch of the entire sound by the selected interval.

### (U.S. & CANADIAN MODELS)

The voltage changeover switch is factory-set to AC 120V. Confirm the switch is set as shown in the figure on the left, and don't touch it.



# CONNECTION DIAGRAM



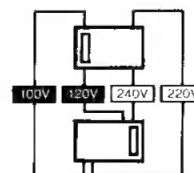
## (GENERAL MODEL)

The line voltage selector on the rear panel selects one of four regulating positions for each nominal line voltage. To select the correct nominal line voltage and selector position, refer to Table 1. In order to set the voltage selector, each position is shown in Fig. 1.

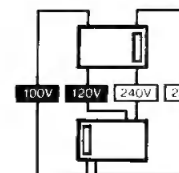
If voltage in your area is:	108 – 132 volts	198 – 242 volts	216 – 264 volts
Set voltage selector to:	120V	220V	240V

Table 1

120V area



220V area



240V area

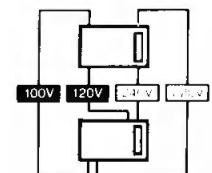


Fig. 1

**CAUTION: THIS EQUIPMENT MAY BE DAMAGED IF OPERATED WITH THE LINE VOLTAGE SELECTOR SET TO AN INCORRECT POSITION.**



# SPECIFICATIONS

**KEYBOARD** . . . . . 61 keys ( $E_0 \sim E_5$ )  
 Velocity-sensitive touch response

**SINGLE mode** . . . . . 16 note simultaneous output,  
 max.

**DUAL mode** . . . . . 8 note simultaneous output,  
 max.

**CONTROLS**

**MODE** . . . . . DUAL/SINGLE selector

**PITCH I**

**PITCH II**

**DECAY I** . . . . . 8 position switch

**DECAY II** . . . . . 8 position switch

**TREMOLO SPEED**

**TREMOLO DEPTH**

**TREMOLO ON/OFF**

**FLANGER ON/OFF**

**WAVE** . . . . . 4 position switch (A,B,C,D)

**FILTER** . . . . . 4 independent selectors  
 (1,2,3,4)

**5TH, 8TH** . . . . . Independent 5th and 8th  
 transpose selectors

**BALANCE** . . . . . 1, 2  $\longleftrightarrow$  3, 4

**EQUALIZER** . . . . . Continuously variable bass and  
 treble controls

**VOLUME**

**SIDE PANEL**

**FOOT SW TREMOLO**

**FOOT SW SUSTAIN**

**OUTPUT ①, ②** . . . . . 1/4" phone jacks

**PHONES** . . . . . 8 ohms or high impedance  
 headphones

**LINE ON/OFF**

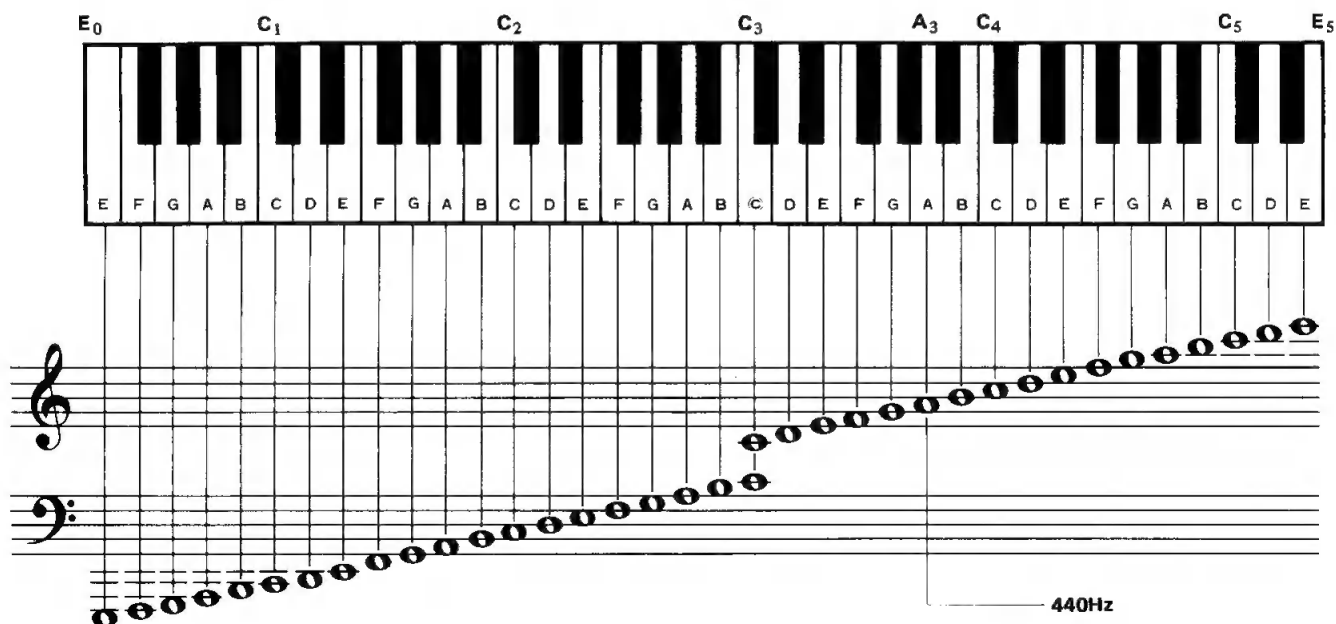
**POWER REQUIRE- MENTS** . . . . . U.S. & Canadian models  
 120V 50/60Hz 22 Watts  
 General model  
 Selectable (100, 120, 220 or  
 240V) 22 Watts

**DIMENSIONS** . . . . . 41-7/8" x 7-1/2" x 23-1/2"  
 (W x H x D)  
 (1,063 x 189 x 596 mm)

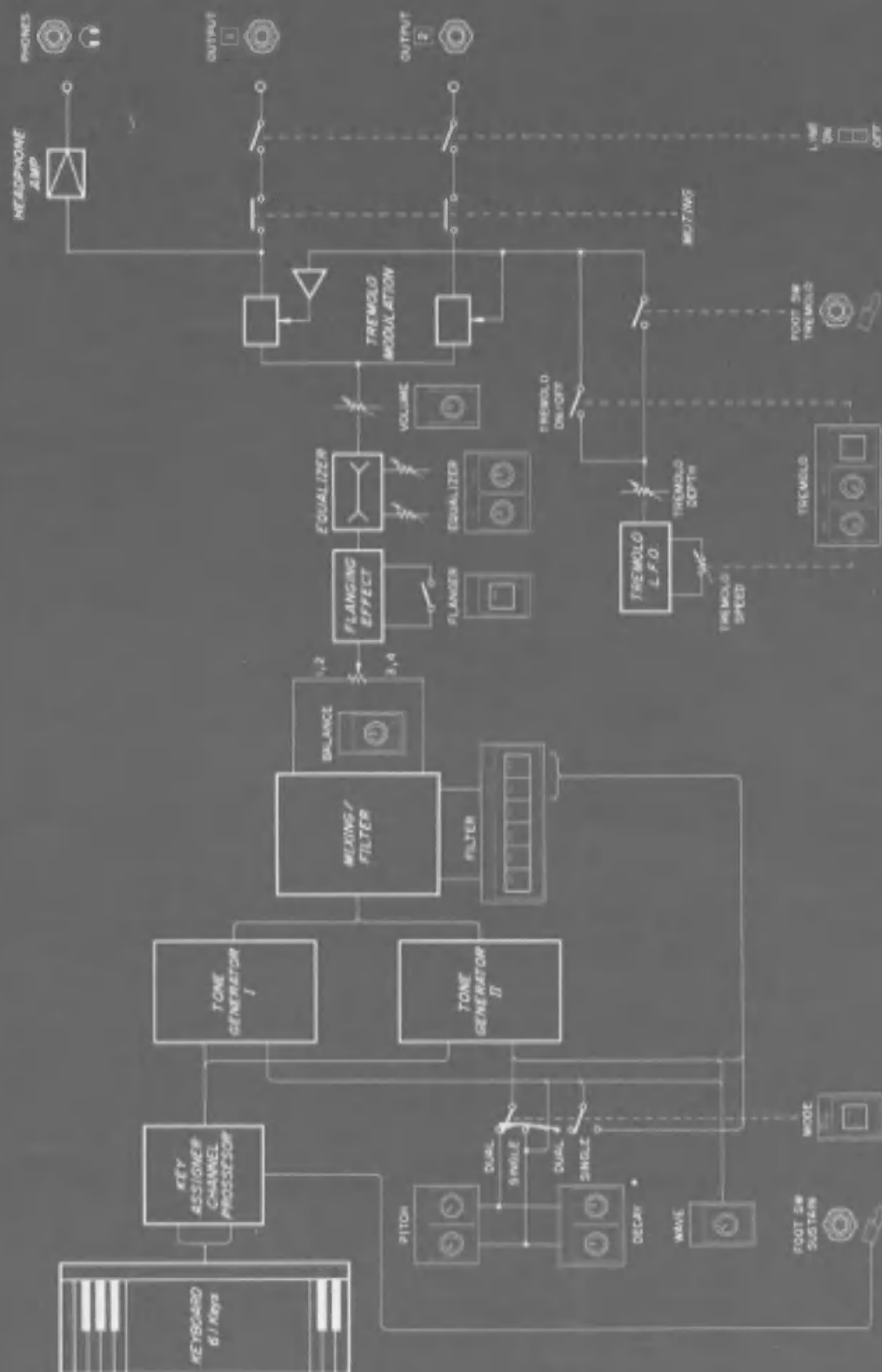
**WEIGHT** . . . . . 90.4 lbs (41 kg)

**STANDARD ACCESSORY** . . . . . FC-4 footswitch

*\* Specifications are subject to change without notice.*



## BLOCK DIAGRAM



### SERVICE

The CP25 are supported by Yamaha's worldwide network of factory trained and qualified dealer service personnel. In the event of a problem, contact your nearest Yamaha dealer.

